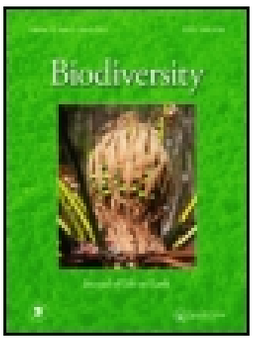

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ON THE GROUND

How much of the ocean is protected?

Lance Morgan, Elizabeth Pike and Russell Moffitt

Marine Conservation Institute, Seattle, USA

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To maintain and recover marine life and address the challenges of degraded oceans governments are establishing Marine Protected Areas (MPAs). In recent years, the rate of MPA creation, especially very large MPAs over 100,000 km^2, has dramatically accelerated (Lubchenco and Grorud-Colvert 2015), as nations strive to reach the 2020 target of 10% ocean protection (the agreed goal of the Convention on Biological Diversity Aichi 11 target and the UN Sustainable Development Goal 14.5). The Atlas of Marine Protection (MPAtlas.org), an initiative of Marine Conservation Institute, tracks and reports on the status of MPAs and progress towards this goal (Figure 1). MPAtlas reviews and validates the numbers reported by governments to ensure that they are accurate and meet conservation objectives as well as providing additional nuanced information such as the coverage of different types of MPAs. A challenge for MPAtlas is that governments often use their own definitions of MPAs and that typically includes fishery and multiple use management zones. While these areas are important, without a primary focus on nature conservation, they are not MPAs (IUCN WCPA 2018).

MPAs are created to safeguard marine life. Thus, as countries strive to achieve their commitments, a clear understanding of what is reasonable to expect from different levels of protection is essential. It is important that we provide information to bridge the mismatch between what stakeholders, managers, policymakers, funders or citizens expect from an MPA and what that particular MPA is likely to deliver (Zupan et al. 2018). This is an important point because a large scientific literature has developed for MPAs that clearly demonstrates that not all MPAs are the same. Marine scientists in the field have demonstrated that fully protected areas result in much better conservation outcomes (fully protected areas have more and larger fish and greater diversity, and this can be an order of magnitude higher than lightly protected areas, Lester et al. 2009; Sciberras et al. 2013). In MPAs that allow fishing (and most MPAs allow some fishing), adjacent fully protected zones result in better conservation (Horta e Costa et al. 2016). It is now clear that if we want to achieve the biodiversity gains and conservation outcomes that we expect when we design and designate MPAs we need to restrict extractive activities (i.e. fishing, oil and gas extraction). If MPAs allow extractive activities, they are less effective at delivering conservation benefits.

MPAtlas attempts to sort out the large number of strongly to poorly protected areas that are present within the 'MPA bucket'. Over time, many terms have been used to describe different types of MPAs – blue parks, refuges, reserves, marine sanctuaries, no-take areas, multi-use areas, etc. These terms are not used uniformly, nor does the same term mean the same thing in different languages or different places. As a result, MPAtlas tracks and categorises additional details about the protection level that allows us to have realistic expectations of the outcomes.

How does MPAtlas determine the amount of ocean protected? First, governments report their MPA numbers to the United Nations Environment Programme – World Conservation Monitoring Centre. This information is presented to the public through the Protected Planet website. MPAtlas combines this information and incorporates additional scientific reports and other assessments to identify and correct errors, fill in details and create a more nuanced display of MPAs. MPAtlas currently reports MPAs in these ways:

(1) 'Strongly protected MPA' – areas where commercial extraction is prohibited and recreational and subsistence extraction is extremely minimal and highly restrictive (following the definition of Lubchenco and Grorud-Colvert 2015). Strongly protected numbers also include 'fully-protected', and the term is applied to a few large, remote MPAs where extraction is minimal.

CONTACT Lance Morgan lance.morgan@marine-conservation.org Marine Conservation Institute

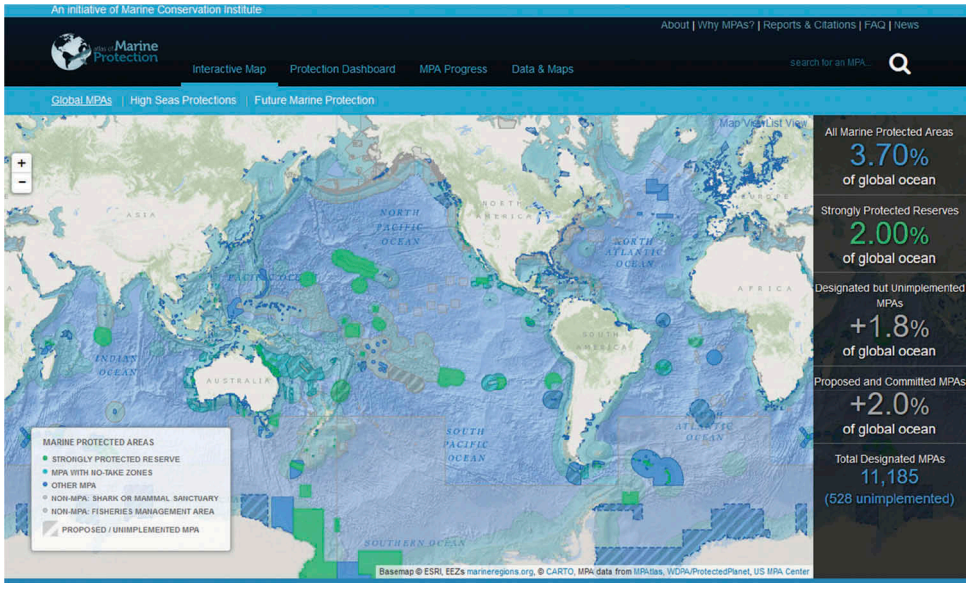

Figure 1. Global MPA map. Source: MPAtlas.org.

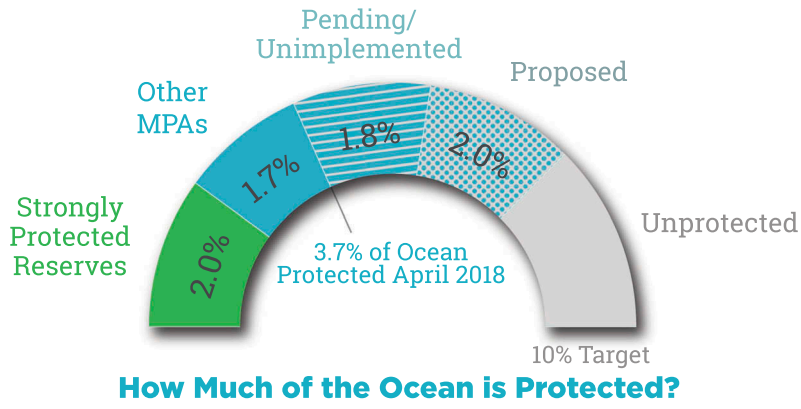

Figure 2. Progress towards 10% target. Source: MPAtlas.org, updated April 2018.

(2) 'MPA' which includes areas that typically allow some extraction and have conservation of nature as a primary goal;
(3) 'MPA with no-take zones';
(4) 'Non-MPA' areas that are reported as MPA but don't meet the IUCN guidance for a MPA after a more detailed review.

MPAtlas similarly categorises which protected areas are proposed or promised, which are legally designated but pending implementation – a process that may take many years – and which sites are in force on the water where it actually matters to marine life.

So how close are we to 10% after analysing the numbers? About 3.7% of the ocean is currently protected. A little over half of this number is in strongly protected reserves (2% of the global ocean), and another 3.8% is on a path to becoming a MPA (MPAtlas.org) (Figure 2).

MPA coverage has dramatically increased in the last year. For example, in just the last year the Ross Sea Protected Area was designated in Antarctica's waters, the Pacific island nation of Niue announced a 127,000 km^2 marine reserve in its waters to be implemented early next year, and Chile is now a global leader in protecting its offshore waters, having increased its protected marine estate to 1.6 million km^2, including the two no-take marine parks at the Juan Fernandéz archipelago and at Cabo de Hornos (Cape Horn) and the Diego Ramirez Islands. This increase also includes the almost 600,000 km^2 Rapa Nui Rahui protected area. Mexico also announced a new very large MPA, converting the Archipiélago de Revillagigedo Biosphere Reserve, 390 km southwest

Figure 3. Revillagigedo Islands, Mexico. Photo Credit Sebastian Nicholls.

of Baja California, into a National Park, expanding it to over 148,000 km^2 (Figure 3).

Looking towards the 10% MPA target, leading marine scientists Dr. Enric Sala of National Geographic Pristine Seas, Drs. Jane Lubchenco and Kristen Grorud-Colvert of Oregon State University, Catherine Novelli, Dr. Callum Roberts of University of York and Dr. Rashid Sumaila of the University of British Columbia put forward a call to action – the Malta Declaration in late 2017 (https://www.nationalgeographic.org/projects/pristine-seas/malta-declaration/. There is a clear and timely need for 'strong' and meaningful protection (as offered in fully-protected marine reserves) and an honest accounting of what is truly protected on the water (Sala et al. 2018).

The trend towards greater focus on the quality of protected areas and ensuring they are delivering conservation outcomes in the basis of new initiatives such as the Global Ocean Refuge System (Marine Conservation Institute 2017) and IUCN Green List (IUCN WCPA 2016). These initiatives set standards and award sites that demonstrate they meet these high standards. The Global Ocean Refuge System has the added goal of looking to build a global network of refugia that will address current gaps in protection and ensure biodiversity is represented across every region of the ocean. This added attention on recognising quality (typically areas that meet the 'strong-protection' level) is a needed focus for conservation and protected areas as we strive to not just reach coverage targets, but ensure conservation outcomes.

Finally, we must also follow through and implement existing MPA commitments. Many leaders use the platforms of high profile international meetings to make announcements of ocean protection – often leading to headlines. These are tremendously valuable public endorsements of why oceans matter and we must work to make sure they succeed. Healthy oceans benefit people and marine wildlife. The global conservation community has its work to do to reach the 2020 10% target, not to mention the IUCN's ambitious 30% MPA coverage resolution from the World Conservation Congress (IUCN 2016), in line with a recent science review (O'Leary et al. 2016). As countries race to meet the 10% by 2020 goal, it is more important than ever to have the MPAtlas to critically interpret 'on the water' protection and incentivise countries to create meaningful and effective MPAs.

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